

IN THE TITLE OF THE INVENTION:

Please amend the title of the invention, in its entirety, so as to read as follows:

SEMICONDUCTOR DEVICE WITH SURGE PROTECTIVE
COMPONENT AND METHOD OF MANUFACTURING THE
SEMICONDUCTOR DEVICE.

IN THE CLAIMS:

Claims 1, 3, 5 and 12 have been amended as follows:

1. (Twice Amended) A semiconductor device having, when one of either an N-type or P-type is defined as a first conductivity type, and the other is provided as a second conductivity type, a semiconductor substrate of the first conductivity type, the semiconductor device comprising:

first and second buried layers provided within the semiconductor substrate, being of the first conductivity type, and being of a higher concentration than the semiconductor substrate;

first and second emitter layers of the first conductivity type;

C first and second base layers of the second conductivity type, the first and second emitter layers being at least partially embedded within the first and second base layers, respectively;

and a substrate layer constituted by the semiconductor substrate,

wherein the substrate layer is sandwiched between the first and second buried layers,

wherein the first and second base layers are positioned on one side surface and the other side

surface of the semiconductor substrate so as to form PN planar junctions with the first and second buried layers, said PN planar junctions extending along the first and second base layers and the first and second buried layers,

wherein the first and second emitter layers are located in a vicinity of a surface of inside of the first and second base layers so as to form PN junctions with the first and second base layers

wherein at least a part of the first and second base layers are respectively provided between the first and second emitter layers and the first and second buried layers, and

wherein at least a part of the first and second buried layers are located between the first and second base layers and the substrate layer.

3. (Amended) The semiconductor device of claim 2, wherein ring-shaped first and second moats with bottom surfaces reaching the buried layers are formed on both sides of the semiconductor substrate, and wherein the first and second emitter layers are located on the inside of the first and second moats.

5. (Amended) The semiconductor device of claim 3, wherein at least a part of the first and second base layers are positioned at a region on the outside of the first and second moats of the surfaces of the semiconductor substrate.

12. (Amended) A semiconductor device having, when one of either an N-type or P-type is defined as a first conductivity type, and the other is defined as a second conductivity type,

a semiconductor substrate of the first conductivity type, the semiconductor device comprising:

first and second buried layers provided within the semiconductor substrate, being of the first conductivity type, and being of a higher concentration than the semiconductor substrate;

first and second emitter layers of the first conductivity type;

first and second base layers of the second conductivity type, the first and second emitter layers being at least partially embedded within the first and second base layers, respectively;

a substrate layer constituted by the semiconductor substrate,

ring-shaped first moat is provided on the surface of the first base layer,

and ring-shaped second moat is provided on the surface of the second base layer,

wherein the substrate layer is sandwiched between the first and second buried layers,

wherein the first and second base layers are positioned on one side surface and the other side surface of the semiconductor substrate so as to form PN junctions with the first and second buried layers,

wherein the first and second emitter layers are located in a vicinity of a surface of inside of the first and second base layers so as to form PN junctions with the first and second base layers,

wherein at least a part of the first and second base layers are respectively provided between the first and second emitter layers and the first and second buried layers, and

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wherein at least a part of the first and second buried layers are located between the first and second base layers and the substrate layer,

wherein the first moat having bottom surfaces reaching the first buried layer, and both outer periphery and inner periphery of the first moat are in contact with the first base layer,

wherein the second moat having bottom surfaces reaching the second buried layer, and both outer periphery and inner periphery of the second moat are in contact with the second base layer.
